Serial No. 09/741,411                                                                                    A. Partyka 20

## Claim Amendments

No claim is amended in this Amendment.

1     1. (previously presented) A method of authentication in a telemetry system, said method
2     comprising:

3     transmitting, by each of a plurality of transmitters, transmissions intermittently at time intervals
4     and at a plurality of frequencies independently of any receiver of said transmissions and independently of
5     any other of said plurality of transmitters, and

6     holding, by a receiver, simultaneously for each of said plurality of transmitters, data indicative of
7     an expected frequency and an expected time of at least one future transmission, and

8     authenticating transmissions based on an expected and actual transmission frequency and time.

1     2. (previously presented) The method of claim 1 wherein said expected transmission frequency
2     comprises estimate for transmitter reference frequency drift.

3     3. (previously presented) The method of claim 1 wherein said expected transmission time
4     comprises estimate for transmitter time reference drift.

1     4. (previously presented) The method of claim 1 wherein each of said plurality of transmitters
2     controls transmission frequency and time between transmissions based on frequency-time pattern that is
3     different for each of said plurality of transmitters.

1     5. (previously presented) The method of claim 1 wherein, each of said plurality of transmitters is
2     for varying encryption key between transmissions.

1     6. (previously presented) The method of claim 5 wherein said encryption key is varied based on
2     frequency-time pattern for controlling transmission frequency and time between transmissions.

1     7. (previously presented) The method of claim 1 wherein each of said plurality of transmitters is
2     for verifiable and variable modification of transmitted messages content based on frequency-time pattern
3     for controlling transmission frequency and time between transmissions.

1     8. (previously presented) A receiver for authenticating telemetry transmissions, said receiver
2     comprising:

3     logic for holding, simultaneously for each plurality of transmissions, data indicative of an
4     expected time and an expected frequency of at least one future transmission, wherein each said plurality

- 2 of 12 -

Serial No. 09/741,411                                                                A. Partyka 20

5    of transmissions is transmitted by a different one of a plurality of transmitters, wherein each of said

6    plurality of transmitters is for transmitting transmissions intermittently at time intervals and at a plurality

7    of frequencies independently of any equipment that is capable of receiving any of said transmissions from

8    any of said plurality of transmitters, and

9        circuitry for receiving said transmissions;

10        wherein said receiver is for authenticating transmissions based on an expected and actual

11    transmission frequency and time.

1        9. (previously presented) The receiver of claim 8 wherein said expected transmission frequency

2    comprises estimate for transmitter reference frequency drift.

1        10. (previously presented) The receiver of claim 8 wherein said expected transmission time

2    comprises estimate for transmitter time reference drift.

1        11. (previously presented) The receiver of claim 8 wherein frequency and time of transmissions is

2    controlled according to a frequency-time pattern that is different for each of said plurality of transmitters.

1        12. (previously presented) The receiver of claim 8 wherein said receiver is for changing

2    decryption key between transmissions based on a frequency-time pattern for controlling frequency and

3    time of transmissions.

1        13. (previously presented) The receiver of claim 8 wherein said receiver, in operation,

2    authenticates transmissions based on verifiable and variable modification of transmission content.

1        14. (previously presented) The receiver of claim 13 wherein said verifiable modification is based

2    on frequency-time pattern for controlling transmission frequency and time.

1        15. (previously presented) A frequency hopping telemetry transmitter comprising:

2        circuit for transmitting transmissions intermittently, at time intervals and at various frequencies,

3    independently of any receiver of said transmissions, and

4        logic for providing a predetermined frequency-time pattern for controlling transmission frequency

5    and time between transmissions, and

6        wherein said transmitter is for varying encryption, for said transmissions, based, at least in part,

7    on said frequency-time pattern.

- 3 of 12 -

Serial No. 09/741,411                                                                      A. Partyka 20

1          16. (previously presented) The transmitter of claim 15 wherein said frequency-time pattern is
2     individually selected for said transmitter from a plurality of predetermined patterns.

1          17. (previously presented) The transmitter of claim 15 wherein said frequency-time pattern is
2     predetermined based on a transmitter identification.

1          18. (previously presented) A frequency hopping telemetry transmitter comprising:

2          circuit for transmitting transmissions intermittently, at time intervals and at various frequencies,
3     independently of any receiver of said transmissions, and

4          logic for providing a predetermined frequency-time pattern for controlling transmission frequency
5     and time between transmissions, and

6          wherein said transmitter is for modification of at least a portion of known data for transmission
7     using a modifier that is varied based, at least in part, on said frequency-time pattern.

1          19. (previously presented) The transmitter of claim 18 wherein frequency-time pattern is
2     individually selected for said transmitter from a plurality of predetermined patterns.

1          20. (previously presented) The transmitter of claim 18 wherein said frequency-time pattern is
2     predetermined based on a transmitter identification.